



March 30, 2009

VIA FED-EX PRIORITY
OVERNIGHT DELIVERY

Mr. William Shane
Surface Water Permits Branch
Kentucky Division of Water
200 Fair Oaks Lane
Frankfort, Kentucky 40601

**Subject: KPDES Permit Application Form A Pages Resubmittal
Wastewater Treatment Plant Expansion and Renovation
Bowling Green Municipal Utilities
Bowling Green, Warren County, Kentucky
GS&P Project No. 26064.00
BGMU Project No. S07-653**

Dear Mr. Shane:

On behalf of our client, Bowling Green Municipal Utilities, please find enclosed the pages of Form A of the KPDES permit application submittal which required revisions per our telephone conversation. These pages include Part A.12, Part B.6, Part D. and Part E. of Form A. As requested, the enclosed pages were revised to include effluent monitoring results based on the current trickling filter treatment scheme. The Bowling Green Municipal Utilities Wastewater Treatment Plant Expansion and Renovation project will modify the subject facility to a sequencing batch reactor (SBR) treatment scheme and increase the design capacity of the subject facility from 10.6 MGD to 15.3 MGD (summer) and 17.5 MGD (winter). The Wastewater Treatment Plant Expansion and Renovation project will be completed prior to the expiration date of the current KPDES Permit No. KY0022403 for the subject facility, which is October 31, 2011.

The Construction Permit Application for Wastewater Treatment Plant form and supporting documentation has been submitted to the Facilities Construction Branch. Therefore, BGMU would appreciate any steps the Kentucky Division of Water could take to expedite the technical review of this submittal along with the original submittal information so that any other issues can be resolved.

Thank you in advance for your attention to this project and we look forward to your earliest reply. Please feel free to contact Ms. Kim Hargett, P.E. or me at 1-731-613-2034 if you have any questions.

Sincerely,
Gresham, Smith and Partners

Angelia R. Howard
Senior Project Designer

Enclosures: Form A - Parts A.12, B.6, D. and E.

Copy Scott Neighbors (BGMU)

Design Services For The Built Environment

10162 Stinson Street / Milan, Tennessee 38358 / Phone 731.613.2034 / www.gspnet.com



A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

- ☐ Primary
 ☒ Secondary
☐ Advanced
 ☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD ₅ removal or Design CBOD ₅ removal	90	% (summer and winter)
Design SS removal	90	% (summer and winter)
Design P removal	--	%
Design N removal	--	%
Other NH ₃ -N	80	% (summer)
	50	% (winter)

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Ultraviolet Disinfection

If disinfection is by chlorination, is dechlorination used for this outfall? ☐ Yes ☐ No (NOT APPLICABLE)

d. Does the treatment plant have post aeration? ☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

(NEW SBR TREATMENT SCHEME. NO EFFLUENT DATA AVAILABLE. DATA PROVIDED IS BASED ON TRICKLING FILTER TREATMENT SCHEME WHICH WILL BE DISCONTINUED AND REPLACED WITH SBR TREATMENT SCHEME.)

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.06	s.u.			
pH (Maximum)	8.25	s.u.			
Flow Rate	14.57	MGD	8.05	MGD	546
Temperature (Winter)	77.90	°F	61.09	°F	324
Temperature (Summer)	83.70	°F	74.29	°F	326

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	54	mg/l	19.71	mg/l	777	405.1	5 mg/l
	CBOD-5	--	--	--	--	--	--	--
FECAL COLIFORM		681	count /100 ml	29.92	count /100 ml	911	SM 909C	1000/100 ml
TOTAL SUSPENDED SOLIDS (TSS)		55	mg/l	16.68	mg/l	781	SM 160.2	5 mg/l

**END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM A
YOU MUST COMPLETE**

- c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

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- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
– Begin construction	May 2009	
– End construction	April 2011	
– Begin discharge	April 2011	
– Attain operational level	May 2011	

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ☐ Yes ☒ No

Describe briefly: Construction permit applications must be submitted to the KY Division of Water.

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001

(NEW SBR TREATMENT SCHEME PROPOSED. NO EFFLUENT DATA AVAILABLE. DATA PROVIDED IS BASED ON TRICKLING FILTER TREATMENT SCHEME WHICH WILL BE DISCONTINUED AND REPLACED WITH SBR TREATMENT SCHEME.)

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	5.4	mg/l	2.55	mg/l	8	SM 4500 NH3	1.0 mg/l
CHLORINE (TOTAL RESIDUAL, TRC)	0.0	mg/l	0.0	mg/l	3	SM 4500-CL D	0.1 mg/l
DISSOLVED OXYGEN	12.14	ml/l	8.60	ml/l	650	SM 4500-O G	0.1 mg/l
TOTAL KJELDAHL NITROGEN (TKN)	10.2	mg/l	8.17	mg/l	3	EPA 351.2	1 mg/l
NITRATE PLUS NITRITE NITROGEN	7.27	mg/l	5.84	mg/l	3	EPA 300.0	0.1 mg/l
OIL and GREASE	4.0	mg/l	2.5	mg/l	8	EPA 1664 A	2 mg/l
PHOSPHORUS (Total)	4.79	mg/l	3.14	mg/l	8	EPA 365.2	0.1 mg/l
TOTAL DISSOLVED SOLIDS (TDS)	816	mg/l	521	mg/l	628	See Note 1	--
OTHER (TOTAL SOLIDS)	838	mg/l	538	mg/l	781	SM 2540 B	5 mg/l

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM A YOU MUST COMPLETE

Note 1: TDS was determined using the following equation: TDS= Total Solids-Settleable Solids-Total Suspended Solids. BGMU performs regular analyses of the three equation parameters. Settleable Solids analyses resulted in "Trace" amounts in 628 analyses during a 3 year period; therefore, analytical results of SS are not listed above.

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA – (NEW SBR TREATMENT SCHEME PROPOSED. NO EFFLUENT DATA AVAILABLE. DATA PROVIDED IS BASED ON TRICKLING FILTER TREATMENT SCHEME WHICH WILL BE DISCONTINUED AND REPLACED WITH SBR TREATMENT SCHEME.)

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	<0.002	mg/l	<0.144	ppd	<0.002	mg/l	<0.142	ppd	3	EPA 200.8	0.002 mg/l
ARSENIC	<0.002	mg/l	<0.151	ppd	<0.002	mg/l	<0.133	ppd	8	EPA 200.8	0.002 mg/l
BERYLLIUM	<0.002	mg/l	<0.147	ppd	<0.002	mg/l	<0.130	ppd	4	EPA 200.8	0.002 mg/l
CADMIUM	<0.002	mg/l	<0.076	ppd	<0.001	mg/l	<0.066	ppd	8	EPA 200.8	0.001 mg/l 0.002 mg/l
CHROMIUM	0.025	mg/l	1.674	ppd	<0.008	mg/l	<0.532	ppd	8	EPA 200.8	0.002 mg/l
COPPER	0.024	mg/l	1.607	ppd	<0.010	mg/l	<0.664	ppd	8	EPA 200.8	0.002 mg/l
LEAD	<0.002	mg/l	<0.152	ppd	<0.002	mg/l	<0.133	ppd	8	EPA 200.8	0.002 mg/l
MERCURY	0.0057	mg/l	0.3878	ppd	0.0048	mg/l	0.3213	ppd	8	EPA 1631	0.0002 mg/l
NICKEL	0.081	mg/l	5.426	ppd	<0.036	mg/l	<2.359	ppd	8	EPA 200.8	0.002 mg/l
SELENIUM	0.004	mg/l	0.294	ppd	<0.002	mg/l	<0.150	ppd	8	EPA 200.8	0.002 mg/l
SILVER	<0.002	mg/l	<0.152	ppd	<0.002	mg/l	<0.133	ppd	8	EPA 200.8	0.002 mg/l
THALLIUM	<0.002	mg/l	<0.144	ppd	<0.002	mg/l	<0.142	ppd	3	EPA 200.8	0.002 mg/l
ZINC	0.053	mg/l	3.599	ppd	0.034	mg/l	2.259	ppd	8	EPA 200.8	0.002 mg/l
CYANIDE	0.036	mg/l	2.142	ppd	<0.016	mg/l	<1.088	ppd	8	SM 4500 CN G	0.01 mg/l 0.02 mg/l 0.005 mg/l
TOTAL PHENOLIC COMPOUNDS	0.160	mg/l	9.582	ppd	<0.077	mg/l	<5.242	ppd	4	EPA 420.1	0.05 mg/l
HARDNESS (AS CaCO ₃)	195	mg/l	11954	ppd	161	mg/l	10699	ppd	8	EPA 130.2	1.0 mg/l
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)											
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
ACRYLONITRILE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
BENZENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
BROMOFORM	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
CARBON TETRACHLORIDE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
CLOROBENZENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
CHLORODIBROMO-METHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
CHLOROETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
2-CHLORO-ETHYLVINYL ETHER	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
CHLOROFORM	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
DICHLOROBROMO-METHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,1-DICHLOROETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,2-DICHLOROETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
TRANS-1,2-DICHLORO-ETHYLENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,1-DICHLOROETHYLENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,2-DICHLOROPROPANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,3-DICHLORO-PROPYLENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
ETHYLBENZENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
METHYL BROMIDE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
METHYL CHLORIDE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
METHYLENE CHLORIDE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,1,2,2-TETRACHLORO-ETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
TETRACHLORO-ETHYLENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
TOLUENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l

Outfall number: <u>001</u> (Complete once for each outfall discharging effluent to waters of the United States.)											
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
1,1,2-TRICHLOROETHANE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
TRICHLORETHYLENE	<0.005	mg/l	<0.367	ppd	<0.005	mg/l	<0.326	ppd	4	EPA 624	0.005 mg/l
VINYL CHLORIDE	<0.002	mg/l	<0.146	ppd	<0.002	mg/l	<0.130	ppd	4	EPA 624	0.002 mg/l
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2-CHLOROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,4-DICHLOROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,4-DIMETHYLPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
4,6-DINITRO-O-CRESOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,4-DINITROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2-NITROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
4-NITROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
PENTACHLOROPHENOL	<0.040	mg/l	<2.380	ppd	<0.011	mg/l	<0.730	ppd	7	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
PHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,4,6-TRICHLOROPHENOL	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.972	ppd	6	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
ACENAPHTHYLENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
ANTHRACENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BENZIDINE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BENZO(A)ANTHRACENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BENZO(A)PYRENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l

Outfall number: <u>001</u> (Complete once for each outfall discharging effluent to waters of the United States.)											
POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BENZO(GH)PERYLENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BENZO(K)FLUORANTHENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BIS (2-CHLOROETHOXY) METHANE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BIS (2-CHLOROETHYL)-ETHER	<0.010	mg/l	<0.613	ppd	<0.006	mg/l	<0.447	ppd	3	EPA 625	0.010 mg/l 0.005 mg/l
BIS (2-CHLOROISO-PROPYL) ETHER	<0.010	mg/l	<0.613	ppd	<0.006	mg/l	<0.447	ppd	3	EPA 625	0.010 mg/l 0.005 mg/l
BIS (2-ETHYLHEXYL) PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
4-BROMOPHENYL PHENYL ETHER	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
BUTYL BENZYL PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2-CHLORONAPHTHALENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
4-CHLORPHENYL PHENYL ETHER	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
CHRYSENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
DI-N-BUTYL PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
DI-N-OCTYL PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
DIBENZO(A,H) ANTHRACENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
1,2-DICHLOROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
1,3-DICHLOROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
1,4-DICHLOROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
3,3-DICHLOROBENZIDINE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
DIETHYL PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
DIMETHYL PHTHALATE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,4-DINITROTOLUENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
2,6-DINITROTOLUENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
1,2-DIPHENYLHYDRAZINE											

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
FLUORENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
HEXACHLOROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
HEXACHLOROBUTADIENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
HEXACHLOROCYCLO-PENTADIENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
HEXACHLOROETHANE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
INDENO(1,2,3-CD)PYRENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
ISOPHORONE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
NAPHTHALENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
NITROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
N-NITROSODI-N-PROPYLAMINE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
N-NITROSODI- METHYLAMINE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
N-NITROSODI-PHENYLAMINE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
PHENANTHRENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
PYRENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l
1,2,4-TRICHLOROBENZENE	<0.040	mg/l	<2.380	ppd	<0.015	mg/l	<0.978	ppd	4	EPA 625	0.040 mg/l 0.010 mg/l 0.005 mg/l

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.

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Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.

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END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA – (NEW SBR TREATMENT SCHEME PROPOSED. NO EFFLUENT DATA AVAILABLE. DATA PROVIDED IS BASED ON TRICKLING FILTER TREATMENT SCHEME WHICH WILL BE DISCONTINUED AND REPLACED WITH SBR TREATMENT SCHEME.)

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

19 chronic acute (C. dubia and P.promelas have been the test species)

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number:	Test number:	Test number:
a. Test information.			
Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			
b. Give toxicity test methods followed.			
Manual title			
Edition number and year of publication			
Page number(s)			
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite			
Grab			
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection			
After disinfection			
After dechlorination			

Chronic:			
NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			
m. Quality Control/Quality Assurance.			
Is reference toxicant data available?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
Was reference toxicant test within acceptable bounds?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

☐ Yes ☒ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: Quarterly (MM/DD/YYYY) BIOMONITORING TEST REPORTS ARE SUBMITTED QUARTERLY TO THE KENTUCKY DIVISION OF WATER, KPDES SECTION

Summary of results: (see instructions)

Except for the test conducted in January 2006, all biomonitoring results have been in compliance with the KPDES permit limitation. An industrial metal discharge violation was found to be the cause of the non-compliance. Follow-up biomonitoring testing was in compliance.

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM A YOU MUST COMPLETE.